

Claim Listing

1. (Previously Presented) A method implemented in an Internet node for reducing Internet bandwidth used for VoIP modem relay, a first modem coupled to the Internet node and a second modem coupled to another Internet node, the method comprising:
 - upon detecting no data packets received from the other Internet node over an IP network to transmit to the first modem, regenerating idle data at the Internet node to transmit to the first modem, the regenerated idle data used to maintain a connection between the first modem and the second modem; and
 - upon detecting idle data received from the first modem over a GSTN network to forward to the other Internet node over the IP network in the payload of a data packet, dropping the detected idle data by not forwarding the data packet over the IP network.
2. (Original) The method as claimed in Claim 1 wherein the idle data is 'FF'.
3. (Original) The method as claimed in Claim 1 wherein the idle data is '7E'.
4. (Original) The method as claimed in Claim 1 wherein the Internet node is an Internet Gateway.
5. (Previously Presented) An apparatus for reducing Internet bandwidth used for transferring data between a first modem and a second modem over an IP network, the apparatus comprising:
 - means for detecting idle data received from the first modem over a GSTN network to forward over the IP network;
 - means for dropping the detected idle data by not forwarding the data packet over the IP network; and

means for regenerating idle data to transmit to the second modem upon detecting no data packets received over the IP network to forward to the second modem, to maintain a connection between the first modem and the second modem.

6. (Original) The apparatus as claimed in Claim 5 wherein the idle data is 'FF'.
7. (Original) The apparatus as claimed in Claim 5 wherein the idle data is '7E'.
8. (Original) The apparatus as claimed in Claim 5 wherein the Internet node is an Internet gateway.
9. (Previously Presented) An Internet node comprising:
 - an idle detect module which detects idle data received from a first modem coupled to the Internet node over a GSTN network to be forwarded to a second modem over an IP network in the payload of a data packet and drops the detected idle data by not forwarding the data packet over the IP network; and
 - an idle generate module which regenerates idle data to transmit to the first modem upon detecting no data packets received from another Internet node over the IP network from a second modem coupled to the other Internet node to be forwarded to the first modem, the regenerated idle data used to maintain a connection between the first modem and the second modem.
10. (Original) The Internet node as claimed in Claim 9 wherein the idle data is 'FF'.
11. (Original) The Internet node as claimed in Claim 9 wherein the idle data is '7E'.
12. (Original) The Internet node as claimed in Claim 9 wherein the Internet node is an Internet gateway.

13. (Previously Presented) A computer program product, for reducing Internet bandwidth used for transferring data between a first modem and a second modem over an IP network, the first modem coupled to a first Internet node, the second modem coupled to a second Internet node, the first Internet node and the second Internet node coupled to the IP network, the computer program product comprising a computer usable medium having computer readable program code thereon, including program code which:
 - regenerates idle data in the first Internet node to transmit to the first modem, upon detecting no data packets received from the second Internet node over the IP network to forward to the first modem; and
 - detects idle data received from the first modem over a GSTN network to forward to the second Internet node over the IP network in the payload of a data packet, the regenerated idle data used to maintain the connection between the first modem and the second modem; and
 - drops the detected idle data by not forwarding the data packet over the IP network.
14. (Previously Presented) The method of claim 1, wherein the idle data is transmitted over the IP network in a modem relay payload of the data packet.
15. (Previously Presented) The method of claim 1, wherein the data packet includes an RTP header.
16. (Previously Presented) The method of claim 1, wherein the idle data transmitted over the GSTN network is encoded in a PCM stream.
17. (Previously Presented) The method of claim 1 further comprising:
 - establishing a modem connection between the first modem and the second modem.